CHAPTER 4

NUCLEAR, BIOLOGICAL AND CHEMICAL DEFENSE LOGISTICS STATUS

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4.1 INTRODUCTION

Since Operation Desert Shield/Storm, the logistical readiness of NBC defense equipment has improved. The Services have increased stockage of most NBC defense equipment, and the overall requirements have decreased as a result of a smaller force. Both factors have improved the overall DoD readiness and sustainment status. Asset visibility initiatives continue to increase the ability to manage what is becoming an increasingly joint collection of NBC defense end items and consumables. A number of items continue to pose a moderate to high risk challenge due to low inventories and continued modernization efforts.

The DoD Chemical and Biological Defense Program jointly manages the research, development, and procurement of major items of NBC defense equipment. Consumable NBC defense items are managed by the Services and the Defense Logistics Agency (DLA) in accordance with Title X responsibilities of the Services, and the desire of the Services to manage their own operations and maintenance funds. Under the provisions of Title X of the FY95 Defense Authorization Act, Service Secretaries are responsible for, and have the authority to conduct, all affairs of their respective departments including supplying, researching, developing, training, and maintaining equipment. Research, development, and procurement of NBC defense items are funded through defense-wide funding accounts. The existence of defense-wide (rather than Service-specific) funding accounts has ensured the joint integration of NBC defense programs. However, no defense-wide (that is, joint) funding mechanism exists for the NBC defense logistics area. Because of this, the *joint* NBC defense community is limited to tracking the status of DoD NBC defense logistics sustainment and making recommendations to correct funding shortfalls.

The Joint Service Materiel Group (JSMG) coordinates logistics issues. The JSMG, established by the Joint Service Agreement (JSA), works to ensure a smooth transition through the phases of NBC defense equipment life cycles. It is also charged with developing and maintaining an annual Joint Service NBC Defense Logistics Support Plan (LSP). This LSP forms the basis for the analysis found later in this chapter.

Perhaps the most influential effort undertaken in FY97 was the Joint Chemical Defense Equipment Consumption Rates (JCHEMRATES) IV study. This study is being sponsored by the Army's Office of the Deputy Chief of Staff for Logistics (ODCSLOG) and executed through the U.S. Army Concepts Analysis Agency (CAA). The goal of the JCHEMRATES study is to define the parameters of future chemical warfare scenarios and determine the consumption rates for consumable DoD chemical defense equipment. Using the current Defense Planning Guidance and Quadrennial Defense Report, the JCHEMRATES study is developing consumption rates for the two Major Theater War (MTW) scenario. These consumption rates will include both medical and non-medical chemical defense items for each Service and overall DoD roll-ups for both scenarios. Once validated by the Services, these rates will form an important basis for determining future Service purchases and their readiness to go to war. As of the writing of this document, the JCHEMRATES IV study results are still draft.

Three problems remain from last year regarding the accountability and management of NBC defense item inventories:

- The Services continue to have very limited asset visibility of consumable NBC defense items below the wholesale level. This has the full attention of the senior NBC defense managers. The completion of this effort is based on the progress of the DoD Total Asset Visibility (TAV) project.

- While the Defense Acquisition Board (DAB) tasked the Joint NBC Defense Board to recommend a secondary item procurement policy, the Services still procure consumable NBC defense items through multiple, separate, and distinct funding authorizations, as discussed in Section 4.6 of this chapter. There continues to be a shortfall of specific NBC items when measured against DoD requirements of a two MTW scenario.

- The process by which the Services and DLA fund and store war reserve materiel has been hampered by differing definitions, different deployment strategies, and a lack of validated requirements for jointly managed items. JCHEMRATES IV, once validated, will create a solid foundation for providing a basis for the common planning of future requirements.

The JSMG developed its second Joint Service NBC Defense Logistics Support Plan during 1997. This report focused on identifying the current on-hand stores of the Services' and DLA's NBC defense equipment, and matching these numbers against the requirements generated from the recently completed draft JCHEMRATES IV study. The LSP's aim is to identify the Services' readiness and sustainment capability, maintenance sustainment, and industrial base issues in the area of NBC defense. The Service/DLA data call conducted for the LSP was used to support the findings in this chapter.

4.2 NBC DEFENSE LOGISTICS MANAGEMENT

NBC defense logistics management remains in transition. The Joint NBC Defense Board has begun to exercise full authority in this area, and the JSMG, which reports to the Joint NBC Defense Board, has been charged with coordinating and integrating logistics readiness. The JSMG's role is to identify current readiness and sustainment quantities in the DoD NBC logistics status, with respect to the two MTW scenario outlined in the Quadrennial Defense Review.

As currently planned, all Services retain "starter stocks" of NBC defense equipment that will support immediate deployments and initial operations. The length of time that these stocks will last each unit depends on the respective parent Service. Air Force units deploy with 30 days of NBC defense consumables. Army divisions use a planning figure of 45 days, while Marine Corps forces and Navy shore units use 60 days as the basis for their plans. Navy ships store up to 90 days of starter stocks. In most cases, the Services will first redistribute any available uncommitted assets to provide sustainment before sourcing elsewhere. Once these starter stocks are depleted, the military force turns to the DoD NBC defense item managers for "swing stocks," also known as "sustainment stocks."

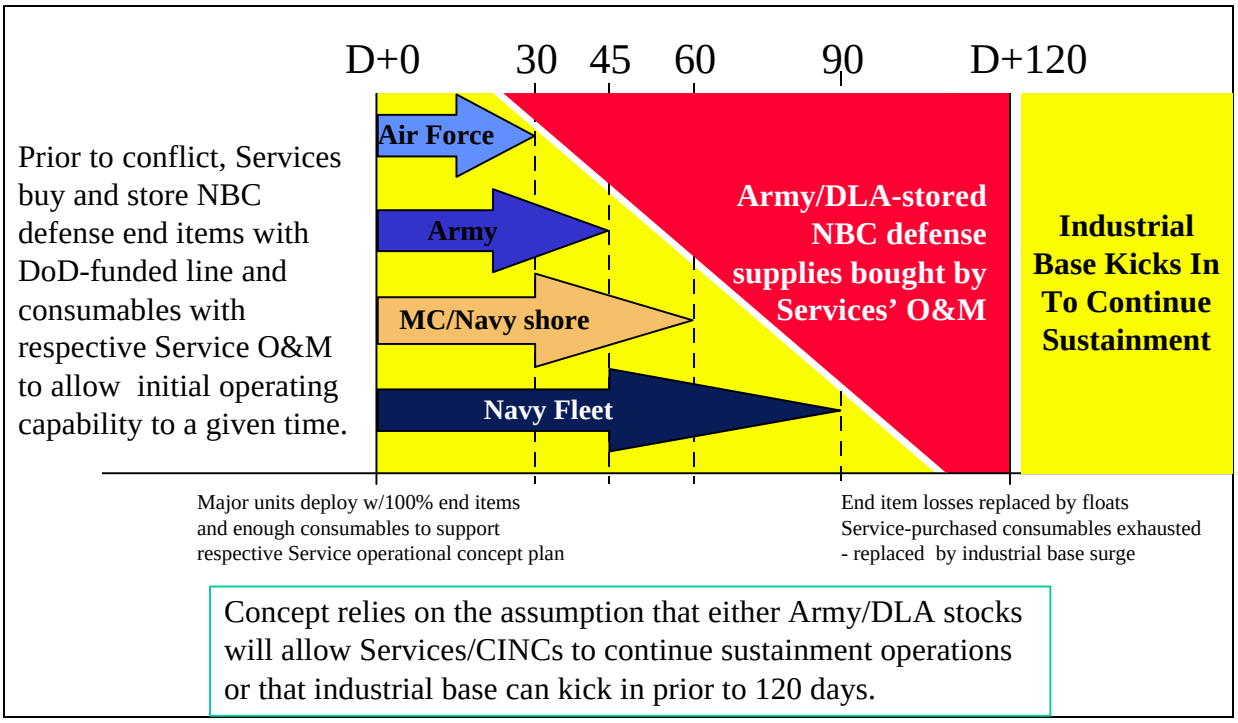

Figure 4-1. War Reserve Requirements and Planning

DLA and the Army Materiel Command (AMC) are the items managers, or National Inventory Control Points (NICP), for the vast majority of NBC defense items in all four Services. They are responsible for industrial base development, acquisition, and storage of wholesale peacetime and sustainment wartime stocks. They buy (process procurement actions) and, if requested, store NBC defense materiel (swing stocks) for the Services. However, the Services must provide funding to DLA and AMC for the procurements.

Currently, only Army owned sustainment stocks are stored in DLA and AMC depots, providing limited back-up for deployed forces during a contingency. Because of a lack of visibility of NBC defense items, unclear wartime requirements (given the post-Cold War environment), scarce Operations and Maintenance funds, and low priorities given to NBC defense stocks, the current quantity of DLA and AMC NBC defense war reserves have been reduced and will not support sustainment requirements during a full two MTW scenario. These numbers are reflected in the tables of this chapter.

Service inventories of NBC defense items maintained at unit level use either manual records or a semi-automated tracking system. Stocks held at wholesale level are maintained using a separate automated system. Currently, there is little connectivity between the two systems. For example, the Air Force established the Mobility Automated Inventory Tracking System (MAITS) to provide a semi-automated tracking system for chemical warfare defense equipment (CDE) items. MAITS has provided for increased Air Force staff asset visibility for installation CDE stocks, but it does not provide information flow directly into the wholesale

databases. This system will, however, provide an interim Air Force CDE logistics tracking net until current Air Force automated databases are linked under the DoD Total Asset Visibility (TAV) program. While other Services' sub-automated databases have different names, their problems are similar. As a result, there is limited Service level asset visibility for NBC defense items. The Services are addressing this deficiency under the auspices of TAV, a long-term initiative which will link existing DoD logistics automated systems.

Both DLA and AMC will remain key players in the future NBC defense logistics management system. The Joint NBC Defense Board, through the JSMG, provides coordination and integration based upon the input of all Services' and commanders-in-chief's (CINCs'). DLA and AMC will continue to provide services such as raw data collection, inventory control, and a distribution infrastructure. Upon the validation of JCHEMRATES IV, the Services and DLA can immediately begin plans to improve their readiness and sustainment status based on a common understanding of post-Cold War requirements.

4.3 QUANTITIES, CHARACTERISTICS, AND CAPABILITIES

The results of the data collection efforts are compiled in Tables 4-2 through 4-5 in Appendix 1, Logistics Readiness NBC Report Data, located at the end of this chapter. A table is included for each of the four Services and DLA.

The items listed under "Nomenclature" in Tables 4-2 through 4-5 of Appendix 1 are the currently fielded NBC defense items in the Services. "Total Service Requirements" include the quantity required for the entire Service, and includes peacetime replacements (wear and tear) and training. The two MTW requirement quantities are those computed by the draft JCHEMRATES IV study. This number represents an average expenditure calculated among four scenarios: chemical defense equipment expenditures under low chemical weapons use during favorable and marginal weather conditions; and of chemical defense equipment expenditures of high chemical weapons use during favorable and marginal weather conditions. All sets of conditions were run for the North-East Asia and South-West Asia scenarios. Wartime requirements for all four Services include materiel requirements to support active duty, reserve, and National Guard forces. Materiel requirements for training and peacetime replacements are *not* included in the wartime requirements.

The "Stocks On-Hand" represent the total of all serviceable NBC defense materiel available in each of the Services (stocks positioned with troops, stocks in the supply system and stocks stored in depots/facilities). This number includes quantities for which a Service or agency has submitted a funded requisition or purchase order in FY97, but has not received the requisitioned items. Finally, the quantities depicted as "Projected Due-Ins" are quantities the Services plan to buy to replace peacetime consumption of NBC defense assets (to include training use and shelf-life expiration), and to buy wartime sustainment stocks. It must be emphasized that these numbers are based on major command estimates of requirements. Actual procurements will be based on available funding.

4.4 LOGISTICS STATUS

During data collection for the FY97 report, information on the inventory status of fielded NBC defense equipment was compiled. From this data, we requested data for 108 fielded items. NBC defense items such as batteries, spare parts, and sub-components were considered a subset of the primary item for risk assessments, and hence not reviewed separately. Trainers were not included in the assessment process, since they do not reflect wartime service requirements. We then compared quantities required for wartime needs to quantities currently on-hand. Characteristics and capabilities of selected fielded NBC defense items are discussed in detail in Annexes A-D of this report. The following items have been added to the FY97 report:

- Chemical Protective Undergarment (CPU)
- M45, M48 and M49 Protective Masks
- Biological Integrated Detection Suite (BIDS)
- M90 Chemical Warfare Agent (CWA) Detector
- Chemical-Biological Protective Shelter (CBPS)
- M51 Shelter System

Of the 108 items extensively reviewed, we developed risk assessments for 46 items based on data gathered as of 30 September 1997 (see Table 4-1). These items were singled out because of their critical role or their ability to represent the general state of their respective commodity area. While some of the items assessed changed from the previous year's report due to obsolescence, assessed items remained as constant as possible to provide for a trend analysis. These were rated as being in a low, moderate, or high risk category. "Risk" is defined as the probability that a shortage in the wartime requirement would exist, severely impacting DoD's ability to respond to a contingency. Shortages were calculated by comparing wartime requirements (draft JCHEMRATES IV average requirements) to on-hand quantities, as shown in Tables 4-2 through 4-5.

RISK ASSESSMENT:

Low –	Services have at least 85 percent of wartime requirement on-hand to support two nearly simultaneous major theater wars
Moderate –	Services have between 70 to 84 percent of wartime requirement on-hand to support two nearly simultaneous major theater wars
High –	Services have less than 70 percent of wartime requirement on-hand to support two nearly simultaneous major theater wars

Table 4-1 provides the results of the assessment. Programs rated as high or moderate risk are discussed in greater detail in Appendix 2. A three-year comparison of data assessments is shown in Figure 4-2. In comparison to FY96 report data, the percentage of the FY97 report's items in the low risk category increased from 56% to 61%. The percentage of items in moderate risk increased from 9% to 17%, while the percentage of items in the high risk category decreased from 35% to 22%.

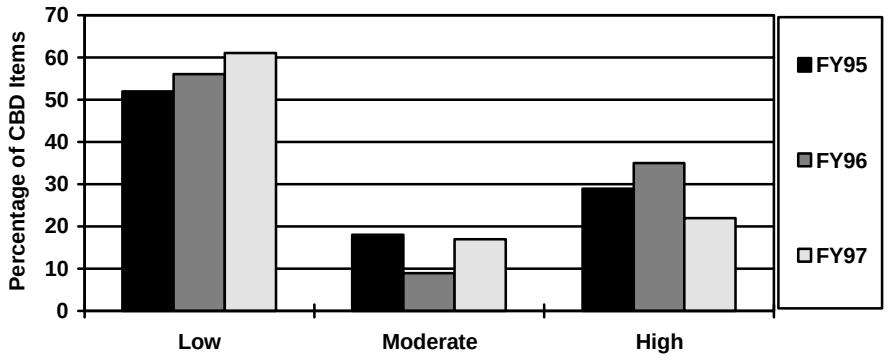

Figure 4-2. Logistic Risk Assessments: 46 NBC Defense Items

While there are only minor changes overall, the following items are highlighted:

- The status of M8A1 chemical agent detectors remains at high risk. Its successor, the M22 ACADA, is not being procured in quantities to supplement the shortage to a degree that would permit a moderate risk assessment in the short term.
- The M272A1 Water Testing Kit and M274 Marking Kit are in short supplies (high and moderate risk respectively). Both these items are not often used in peacetime.
- While quantities of BDOs appear adequate, the shelf life of much of the BDO inventory is reaching its end. The recent plus-up of procurement funds for protective suits has aided in plans to transition to the JSLIST program. As a result, the BDO risk has been re-assessed as low.
- CWU 66/77P remains the only Air Force capability for air crew ensembles with the end of the CP undercoverall procurement, and are assessed at high risk. Inadequate funds and the lack of an established procurement contract hamper the ability to correct this assessment in the short term.
- The collective protection area is assessed as high risk at this time, in part due to the continued emphasis on contamination avoidance and individual protection which overshadows this area. As the procurement cycle in these two latter areas matures, the risk assessment of collective protection systems will lessen slightly.
- While the M291 and M295 Decontamination Kits are assessed as posing a moderate risk, the inventory shortage of the M291 kits are offset by inventory of M258A1 Decontamination Kits. This resulted in a low risk assessment. The status of the M295 kits will improve as procurement funds are released.
- The risk status of medical chemical defense materiel has improved due to lower calculated wartime requirements (JCHEMRATES IV) and planned procurements increasing the past inventory. The shortage of NAAKs can be supplemented with existing supplies of atropine and 2-PAM autoinjectors, reducing its risk from moderate to low.
- The recent award of a prime systems contract for the Joint Vaccine Acquisition Program (JVAP), combined with adequate stores of vaccine for the major BW threats, resulted in a lowering of the risk category from high to moderate risk. Continued vigilance is necessary to ensure that the contractors retain a FDA-approved capability to produce and store vaccines in quantities required to protect the force.

Table 4-1. Logistic Risk Assessments: 46 NBC Defense Items

CONTAMINATION AVOIDANCE/DETECTION EQUIPMENT

Items	Risk Assessment	Remarks
M256A1 Chemical Agent Detector Kit	Low	Shelf life expiration may reduce stocks sharply
M8 Detection Paper	Low	
M8A1 Automatic Chemical Agent Alarm	High	Procurement curtailed. M22 ACADA will supplement
M1 Chemical Agent Monitor (CAM)/Improved CAM	Moderate	Low inventory; still fielding
Chemical Agent Point Detection System (CAPDS)	Low	
AN/KAS-1 Chemical Warfare Directional Detector	Low	
M21 Remote Sensing Chemical Agent Alarm (RSCAAL)	High	Low inventory
M93A1 NBC Reconnaissance System "Fox"	High	Low inventory; still fielding
M272A1 Water Testing Kit	High	Low inventory
M274 NBC Marking Set	Moderate	Low inventory
Biological Integrated Detection System (BIDS)	High	Low inventory, still fielding

INDIVIDUAL PROTECTION

Items	Risk Assessment	Remarks
Masks		
MCU-2/P-series Mask	Low	USAF/USN mask
M40-series General Purpose Mask	Low	USA/USMC mask
M42-series Tank Mask	Moderate	Replaces M25A1 mask; still fielding
M48 Apache Mask	Moderate	Replaces the M43A1 mask; still fielding
MBU-19/9 Aircrew Eye/Resp. Protection (AERP)	Low	Replaces MBU-13/P; still fielding
Suits		
JSLIST (Adv. BDO)	Moderate	In process of fielding to all Services
Battle Dress Overgarment (BDO)	Low	Being replaced by JSLIST
Saratoga Suit	Low	No further production - being replaced by JSLIST
CWU 66/77P	High	Low inventory; augmented by USAF CPU
Chemical Protective Undercoverall	Low	
Mark III Suit, CP, OG	Low	No further production - being replaced by JSLIST
Aircrewman Cape	Low	
Gloves/Overboots		
Chemical Protective Gloves (7/14/25-mil)	Low	
Green/Black Vinyl Overshoes (GVO/BVO)	Low	Risk lowered due to CP footwear cover stocks
Chemical Protective Footwear Covers	Low	Replaced by GVO/BVO
Disposable CP Footwear Covers	Low	
CP Socks	Low	Phase-out item

Note - Only selected Low Risk programs are displayed for information purposes.

COLLECTIVE PROTECTION

Items	Risk Assessment	Remarks
M20A1 Simplified Collective Protective Equipment (SCPE)	High	Low inventory
Portable Collective Protective System (PCPS)	Moderate	Low inventory
M48A1 General Purpose Filter	High	Low inventory
Filter For (M59, M56, Shipboard)	High	Low inventory

Table 4-1. Logistic Risk Assessments: 46 NBC Defense Items (continued)

DECONTAMINATION EQUIPMENT

Items	Risk Assessment	Remarks
M258A1 Skin Decontamination Kit	Low	Replaced by M291
M291 Skin Decontamination Kit	Low	Risk lowered based on M258A1 stocks
M295 Individual Equipment Decontamination Kit	High	Low inventory
M11 Decontaminating Apparatus	Low	
M13 Decontaminating Apparatus	Low	
M17A3 Lightweight Decontamination System	Low	
M12A1 Power Driven Decontamination Apparatus	Moderate	Risk increased due to maintenance rqmts
A/E32U-8 Decontamination System	Low	

MEDICAL DEFENSE

Items	Risk Assessment	Remarks
Mark 1 Nerve Agent Antidote Kit (NAAK)	Low	Risk lowered based on autoinjector stocks
Atropine Autoinjector	Low	
2-PAM Chloride Autoinjector	Low	
Nerve Agent Preventative Pyridostigmine (NAPP) Tablet	Low	
Convulsant Antidote Nerve Agent (CANA) Autoinjector	Low	
Biological Warfare Vaccines	Moderate	Prime contract awarded for development, production, FDA licensure, and storage

Note - Only selected Low Risk programs are displayed for information purposes.

Based on the average two MTW requirements identified in the draft JCHEMRATES IV study, the Services continue to exhibit shortages in certain critical areas. Shortages of chemical and biological agent detection systems, collective protection shelters and their respective filters, and biological warfare vaccines may have a serious impact on the joint force's ability to survive and sustain combat operations under NBC warfare conditions operating in two nearly simultaneous MTWs. The extent of the operational impact of NBC defense equipment shortages is under review in several classified studies.

4.5 PEACETIME REQUIREMENT

In peacetime, quantities of NBC defense equipment are necessary to train personnel in NBC defense and to build confidence that NBC equipment will provide the necessary protection when used correctly. The two most critical areas of peacetime stocks are individual protective equipment and medical chemical defense materiel.

Individual protection equipment is maintained at the unit level. Generally, items used in peacetime for training are drawn from wholesale stocks, requiring units to maintain both training and contingency stocks. For selected items, such as protective clothing, contingency utility is lost when the item is used (or consumed) for training. Because peacetime training requirements are met in this manner, major commands do not track training equipment in their estimates of on-hand requirements. The Services, however, have indicated that adequate NBC defense equipment is on-hand to conduct training.

Individual medical chemical defense materiels [*i.e.*, Nerve Agent Antidote Kits (NAAK), Convulsant Antidote Nerve Agent (CANA), Nerve Agent Pyridostigmine Pretreatment (NAPP) tablets, or more commonly Pyridostigmine Bromide (PB) Tablets] are no longer stored at the unit level (with the exception of those items in sets, kits, and outfits). The Army Medical Department centrally funds and manages these items for units in Division Ready Brigade (DRB) sets. To date, 20 DRB sets have been strategically fielded worldwide. In addition, six DRBs are maintained by the manufacturer (three sets for contingencies and three sets for training. The DRB set contains 15,000 each of NAAK, 5,000 each of CANA, and 1,000 packages of PB tablets. These sets will be issued to deploying units at the direction of the Office of the Surgeon General/Department of the Army Office of the Deputy Chief of Staff for Logistics. One DRB set contains the appropriate individual medical chemical defense materiel for 5,000 personnel. Components of the DRB sets are stored separately since PB tablets must be refrigerated and CANA requires secured storage. Due to the current "investigational new drug" status of the PB tablets, this component will not be issued to units without prior approval from Headquarters, Department of the Army.

4.6 FUNDING

In accordance with the NBC defense management initiatives outlined in Chapter 1, funding of RDT&E and procurement was centralized in a DoD defense-wide account beginning in FY96. However, operations and maintenance (O&M) funding for NBC defense materiel is not consolidated at the DoD level. Therefore, for non-major (secondary) end items (*e.g.*, consumables such as decontamination kits, detection kits, and filters), each Service continues to separately fund replenishment and sustainment of NBC defense equipment. Depot maintenance and contractor logistics support for some low density major items are also O&M funded. These appropriations are not included in the joint NBC defense program.

Funding of NBC defense items classified as war reserves secondary items (WRSI) remains a significant issue. The Services are responsible for developing the requirements and funding items in war reserve stocks. Funding of WRSI comes from Congressional appropriations made into the Working Capital Fund (WCF) from the transfer of Services' O&M funds. For example, replenishment of NBC defense items in Army war reserves will require substantial funding from 1999 through 2006 as these items reach their maximum extended shelf lives. Funding will be required to replace the Army's current inventory of BDOs with the Joint Service Lightweight Integrated Suit Technology (JSLIST). The Marine Corps, through its normal requirements generation and acquisition process, was able to obtain 100% war reserve of Saratogas for initial projected war reserves requirement. However, when basing their war requirements on JCHEMRATES III, the Marine Corps has a shortage of 500,000 suits (JCHEMRATES III calculations were used as JCHEMRATES IV is not formally accepted as of this report). The recent plus-up of funds for protective suits will assist in building an initial stockage and minimum sustainment (war reserve) stock to meet the current defense planning guidance.

Under the current acquisition procedures and DoD guidance to minimize wholesale stockpiles, procurements are based only on funded Service requisitions. The Services remain responsible for program funding to replace NBC defense equipment wartime stocks. Procurement is usually based on economic buy quantities (a consolidation of all Service requisitions) to provide the best value to the government. Some procurements, however, suffer significant delays in delivery because of the time required to accumulate sufficient requisitions to produce economic buy quantities. This situation occurs when item managers try to plan purchases of consumable items that have a low peacetime consumption but high wartime consumption (such as decontamination kits, large collective protection filters and M256A1 detector kits). The result is a low purchasing history with a small industry production capability, which in turn causes a very low war reserve status with minimal industry surge capability. The draft JCHEMRATES IV model will identify more accurate requirements on which the Services can base their planning, once the study is validated and approved.

4.7 INDUSTRIAL BASE

While the sector is improving, vulnerabilities still exist. Operation Desert Storm highlighted a case in which the industrial base did its best to keep spares and repair parts available yet, there were critical shortages in protective clothing, filters, medical supplies, and batteries for chemical defense equipment. Collective protection systems (filters in particular) continue to be the most critical subsector in the NBC defense area. Additionally, protective clothing procurement continues to receive intense scrutiny due to the possibility of industrial base shortfalls in satisfying requirements during a contingency. The reluctance of pharmaceutical industries to support DoD CB defense medical programs, coupled with a lack of government vaccine production, represents a serious medical industrial base shortcoming.

These assessments indicate that the NBC defense industrial base sector is primarily supported by small- to medium-sized highly specialized companies dedicated to producing military unique products with little or no commercial utility. These companies have become dependent on Service demands and sales for their financial survival. Selected NBC defense items (BDOs, chemical gloves, and nerve agent autoinjectors) have been designated as critical to combat operations because of low peacetime demand, high wartime use, and the fragile supporting industrial base. As a result, DLA established, with OSD approval, a “War Stopper” program to sustain key industrial base capabilities, utilizing industrial preparedness funding under PE 07080110.

The Quadrennial Defense Review (QDR), *Proliferation: Threat and Response*, and other reports and studies highlight the continued threat of NBC warfare. Despite the end of the Cold War, a smaller DoD force, and subsequently reduced requirements for NBC defense items, low purchases of NBC defense consumables continue to threaten the industrial viability of this sector. Currently a Joint Service Industrial Base Integrated Product Team (IPT), consisting of DLA, AMC, DoD, and the Services, is developing approaches to sustain key and critical manufacturing processes and capabilities to ensure that the industrial base can produce sufficient quantities of NBC defense items prior to or during a major theater war. Specifically, the IPT is conducting assessments on thirty fielded consumable items, and determining whether sufficient

technological and industrial capabilities will be available to meet planned DoD developmental and production requirements.

4.8 NBC DEFENSE LOGISTICS SUPPORT ASSESSMENT

ISSUE: **DoD lacks a joint, integrated system to maintain asset visibility of NBC defense equipment below wholesale level, and lacks a standardized war reserve program for NBC defense equipment. Resourcing the procurement and sustainment of wartime stocks of individual protective equipment, decontamination kits, and detector kits remains the responsibility of the Services.**

SOLUTION**:** DoD established the requirement for asset visibility and reviewed existing systems and procedures, both for peacetime reporting and war time reporting. The Services and DLA are addressing the NBC defense asset visibility deficiency under the auspices of the Total Asset Visibility initiative.

During 1997, all four Services participated in the development of the JCHEMRATES IV study, which is providing a more accurate prediction of the initial issue and sustainment quantities required for each Service. The use of this common methodology will allow the presentation of Joint Service requirements in future reports and facilitate improved joint logistics management.

The Department of Defense continues to pursue innovative strategies to maintain a responsive industrial base, especially those strategies that decrease industry reliance on DoD procurement for industrial base survival. Strategies may include tapping into independent research and development (IR&D) conducted by universities and corporations, increasing reliance on dual-use technologies, and pursuing strategies that will encourage companies to decrease dependency on DoD requirements for their survival.

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APPENDIX 1.
BREAKOUT OF SERVICE WAR REQUIREMENTS, STOCKS ON-HAND, AND PLANNED ACQUISITIONS

The following tables display NBC defense equipment wartime requirements, stocks on-hand quantities to include FY97 quantities on contract, and FY98–99 planned procurements for each of the four Services and Defense Logistics Agency. As mentioned earlier in this chapter, the two MTW requirements are based on the average requirements developed under the draft JCHEMRATES IV study. This study has not yet been approved, but is anticipated in April 1998.

Portions of these charts remain blank. There are cases where the Services elect not to track certain items of NBC defense equipment (especially low-cost high-volume consumables), and therefore it is difficult to identify precise on-hand quantities. This asset visibility issue has been discussed earlier in this chapter. In the case of end items, the JCHEMRATES study did not develop end item wartime requirements; if the Services knew a wartime estimate of end items, that number was used. In the case of consumables, some Services chose not to indicate total service requirements as this figure is highly dependent upon major subordinate commands' annual peacetime requirements. The Services continually update these data call sheets on a frequent basis and consider these fluid worksheets rather than a static set of figures. The Services and DLA are working through the FY98 Joint Service NBC Defense Logistics Support Plan to update all figures and to provide 100% of the information required for logistics readiness and sustainment assessments.

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Table 4-2a. Army Logistics Readiness Data - Nonconsumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS					
					FY98	FY99	FY00	FY01	FY02	FY03
INDIVIDUAL PROTECTION COMMODITY AREA										
CB MASK										
MASK, CB, M17A2	4240-01-143-2017-20	32,0214	0	806,211	0	0	0	0	0	0
MASK, CB, M40/M40A1	4240-01-258-0061-63	796,547	588,854	309,663	48,000	46,076	0	0	0	0
MASK, M24, AVIATOR	4240-00-776-4384	11,166	0	22,593	0	0	0	0	0	0
MASK, M25A1, TANK	4240-00-994-8751-52	19,494	0	93,635	0	0	0	0	0	0
MASK, M42, TANK	4240-01-258-0064-66	95,774	64,060	48,833	105,089	119,987	48,443	0	0	0
MASK, M43, APACHE	4240-01-208-6966-69	3,500	2,215	2,340	0	0	0	0	0	0
MASK, M45, AVIATOR	4240-01-141-4034-52	22,591	13,454	13,043	9768	3500	0	0	0	0
MASK, M48, APACHE	4240-01-386-0198	2,215	1,836	0	2,215	0	0	0	0	0
MASK, M49	4240-01-413-4095-99	1,003	0	16	1,003	0	0	0	0	0
MISC PROTECTION										
PATS, M41	4240-01-365-8241	6,273	3,334	1,875	912	896	949	0	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA										
BIOLOGICAL DETECTION EQUIPMENT										
BIDS, M31	6665-01-392-6191	210	85	45	14	28	21	20	0	0
LR-BSDS, M34	6665-00-422-6605	12	10	4	0	0	4	4	3	0
CHEMICAL DETECTION EQUIPMENT										
ACADA, M22	6665-01-348-6963	28,839	28,839	0	1,722	2,151	3,269	3,599	0	0
ALARM, CAA, M8A1	6665-01-105-5623	37,247	28,000	25,215	0	0	0	0	0	0
CAM/ICAM	6665-01-357-8502	15,636	12,000	9,532	2,020	1,047	1,571	1,518	0	0
M21 RSCAAL	6665-01-334-6637	195	156	162	0	0	0	0	0	0
NBC RECON SYS, M93A1	6665-01-372-1303	211	195	57	12	11	0	0	0	0
DECONTAMINATION COMMODITY AREA										
DECON APPAR, M11	4230-00-720-1618	118,000	118,000	108,870	0	0	0	0	0	0
DECON APPAR, M13	4230-01-133-4124	136,150	136,150	178,532	0	0	0	0	0	0
DECON APPAR, PDDA, M12A1	4230-00-926-9488	804	804	1,000	0	0	0	0	0	0
L/WT DEC SYS, M17A1	4230-01-303-5225	2,511	2,511	2,149	30	0	0	0	0	0
COLLECTIVE PROTECTION COMMODITY AREA										
SHELTER, CB PROTECT	5410-01-441-8054	1,253	792	9	83	37	34	36	40	40
SHELTER, CP, M20/M20A1	4240-01-166-2254	1,747	1,747	687	3	0	0	0	0	0
SHELTER, M51	4240-00-854-4144	337	337	161	0	0	0	0	0	0

Table 4-2b. Army Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
INDIVIDUAL PROTECTION COMMODITY AREA						
OVERGARMENTS						
CHEM PROT UNDERGARMENT	8415-01-363-(8692–8700) 8415-01-363-(8683–8691)		262,149	150,062	0	0
JSLIST (ABDO) 45 DAYS	8415-01-444-1163 8415-01-444-5902		2,962,127	0	113,500	76,125
SCALP (TAN AND GREEN)	8415-01-364-(3320–3322) 8415-01-364-(3458–3460)		80,385		0	0
SUIT, CP CAMO (BDOs)	8415-01-137-1700-07		0	3,350,396	0	0
OVERBOOTS/GLOVES						
BLK/GRN VINYL O/BOOTS	8430-01-317-3374-85		3,480,192	1,518,501	0	0
CP FOOTWEAR COVERS	8430-01-021-5978		0	410,470	0	0
CP GLOVES 7 MIL	8415-01-138-2501-04		171,546	123,509	0	0
CP GLOVES 14 MIL	8415-01-138-2497-00		686,184	240,120	0	0
CP GLOVES 25 MIL	8415-01-033-3517-20		4,354,078	5,867,799	0	0
MISC PROTECTION						
2D SKIN, M40 SERIES	4240-01-413-1540		193,938	0	0	0
CP HELMET COVER	8415-01-111-9028		1,884,458	2,568,799	0	0
FILTER CAN, C2A1	4240-01-361-1319		325,108	1,355,690	409,021	0
FILTER CAN, M10A1	4240-00-127-7186		0	101,120	0	0
FILTER ELEMENT, M13A2	4240-00-165-5026		0	549,554	0	0
HOOD, M40	4240-01-376-3152		1,987,571	2,020,283	46,055	0
HOOD, M5 (FOR M25A1)	4240-00-860-8987		0	36,177	0	0
HOOD, M6A2 (FOR M17)	4240-00-999-0420		0	526,647	0	0
HOOD, M7 (FOR M24)	4240-00-021-8695		0	41,384	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA						
CHEMICAL DETECTION EQUIPMENT						
DET KIT, M256A1	6665-01-133-4964		33,261	85,089	18,345	0
DET PAPER, M8	6665-00-050-8529		905,141	1,601,190	0	0
DET PAPER, M9	6665-01-226-5589		1,098,158	676,629	275,522	0
MAINT KITS, M293/M273	5180-01-379-6409 5180-01-108-1729		397,995	2,141	0	0
NBC MARK SET, M274	9905-12-124-5955		6,244	5,209		0
WATER TEST KIT, M272A1	6665-01-134-0885		12,054	6,673		0
DECONTAMINATION COMMODITY AREA						
DECON KIT, M258A1	4230-01-101-3984		0	250,727	0	0
DECON KIT, M291	4230-01-276-1905		181,175	46,325	32,168	0
DECON KIT, M295	4230-01-357-8456		181,148	3,976	6,225	0
DS2, 1 1/3 QT	6850-00-753-4827		29,864	207,073	0	0
DS2, 5 GAL	6850-00-753-4870		343,051	315,490	0	0
DS2, M13 CAN	4230-01-136-8888		83,529	35,000	0	0
STB	6850-00-297-6653		16,834	47,380	0	0
COLLECTIVE PROTECTION COMMODITY AREA						
FILTER, CP M12A2 (M14 GPFU)	4240-01-365-0981		1,326		0	0

Table 4-2b. Army Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
FILTER, CP M13 SERIES (M14 GPFU)	4240-00-368-6291		1,326	4,733	0	0
FILTER, CP M18A1	4240-00-365-0982		6,136	11	0	0
FILTER, CP M19	4240-00-866-1825		3,627	11,289	0	0
FILTER, GP M48A1	4240-01-363-1311	9,600	936	208	9600	0
FILTER SET FOR (M59, M56, SHIPBOARD)	4240-01-369-6533		177	86	0	0
MEDICAL COMMODITY AREA						
2-PAM CHLORIDE AUTOINJ	6505-01-125-3248	293,173	385,339	1,109,549	0	0
ATROPINE AUTOINJ	6505-00-926-9083	994,541	385,339	663,700	0	0
CANA AUTOINJ	6505-00-274-0951	847,927	95,044	361,651	153,314	348,536
NAAK, MKI	6705-01-174-9919	2,784,711	456,328	384,184	311,525	0
PYRIDOSTIGIMINE TAB	6505-01-178-7903	326,522	36	171,742	293,243	0

Table 4-3a. Air Force Logistics Readiness Data - Non-Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS					
					FY98	FY99	FY00	FY01	FY02	FY03
INDIVIDUAL PROTECTION COMMODITY AREA										
CB MASK										
MASK, AERP	8475-01-339-9782(S)	29,879	15,243	20,542	6,628	212	0	0	0	0
MASK, CB, M17A2	4240-01-143-2017-20	1,525	1,520	2,450	0	0	0	0	0	0
MASK, MCU-2/P, MASK, MCU-2A/P AND MASK, MCU-2A/P (WR) USAF	4240-01-415-4239-41 4240-01-284-3615-17 4240-01-327-3299-01	345,856	30,583	311,655	20,464	3,647	0	0	0	0
MISC PROTECTION										
PATS, M41	4240-01-365-8241	1,208	1,160	316	3	889	0	0	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA										
CHEMICAL DETECT EQUIP										
ACADA, M22	6665-01-348-6963	405	405	113	231	1	0	0	0	0
ALARM, CAA, M8A1	6665-01-105-5623	343	331	218	38	4	0	0	0	0
CAM/ICAM	6665-01-357-8502	104	108	75	4	4	0	0	0	0
CHEM AGENT MONITOR/ICAM	6665-01-199-4153	935	910	417	447	37	0	0	0	0
M90 CWA	6665-01-408-5108	58	58	54	0	0	0	0	0	0
DECONTAMINATION COMMODITY AREA										
A/E32U-8 DECON SYS	4230-01-153-8660	94	94	81	1	0	0	0	0	0
L/WT DEC SYS, M17	4230-01-251-8702	280	266	324	9	0	0	0	0	0
L/WT DEC SYS, M17A1	4230-01-303-5225	39	32	35	0	0	0	0	0	0
L/WT DEC SYS, M17A3	4230-01-346-3122	5	5	0	0	0	0	0	0	0
					0	0	0	0	0	0
COLLECTIVE PROTECTION COMMODITY AREA										
KMU-450 SHEL MOD KIT	4240-01-044-7659	16	16	16	0	0	0	0	0	0

Table 4-3b. Air Force Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
INDIVIDUAL PROTECTION COMMODITY AREA						
OVERGARMENTS						
AIRCREWMAN CAPE	8415-01-040-9018	221,379	41,178	222,487	4,613	10,801
CHEMICAL OUTFIT	8415-00-782-3245	4,554		4,546	0	0
CLOTHING TEST KIT	6630-00-783-8192	170		3	0	0
CP UNDERCOVERALL	8415-01-040-3141	70,188		92,939	474	452
JSLIST (ABDO) 45 DAYS	8415-01-444-1163 8415-01-444-5902		389,090			
SUIT, AIRCREW, CWU-66/77P	8475-01-328-3454(S)	87,673	128,675	58,591	25,701	2,775
SUIT, CP CAMO (BDO)	8415-01-137-1700-07	996,098	0	876,696	48,938	15,819
SUIT, CP CAMO-DESERT 3 clr	8415-00-327-5347-53	13,878	0	27,255	270	0
SUIT, CP CAMO-DESERT 6 clr	8415-01-324-3084-91	23,716	0	42,598	0	2,223
OVERBOOTS/GLOVES						
BLK/GRN VINYL O/BOOTS	8430-01-317-3374-85	970,472	599,238	990,588	70,700	48,671
CP FOOTWEAR COVERS	8430-01-021-5978	106,612		179,458	1,760	4,054
CP GLOVES 7 MIL	8415-01-138-2501-04	217,682	74,994	326,397	26,044	5,681
CP GLOVES 14 MIL	8415-01-138-2497-00	1,730,025	156,990	1,603,500	442,319	71,062
CP GLOVES 25 MIL	8415-01-033-3517-20	81,511	577,263	115,207	2,160	17
CP SOCKS	8415-01-040-3169	186,222		187,565	3,720	400
DISP FOOTWEAR COVER	8430-00-580-1205	197,847		221,895	13,216	1,820
GLOVE INSERTS	8415-00-782-2809 (S)	2,025,992		1,586,075	391,576	66,256
MISC PROTECTION						
FILTER CAN, C2/C2A1	4240-01-119-2315	1,971,054	88,669	1,972,801	342,555	55,837
FILTER, GP	4240-01-161-3110	1,750		2,258	0	0
HOOD, M6A2 (FOR M17)	4240-00-999-0420	76,767	0	56,852	0	0
HOOD, MCU-2/P	4240-01-189-9423	1,881,061	153,930	2,212,425	79,414	10,715
MICS (COOL SYSTEM)	4240-01-298-4140YR	33	556	42	0	0
MICS VEST	8415-01-217-5634	1,110	1,015	1,410	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA						
CHEMICAL DETECT EQUIP						
DET KIT, M256A1	6665-01-133-4964	38,385	162	17,601	390	75
DET PAPER, M8	6665-00-050-8529	374,408	217,006	672,667	8,941	6,209
DET PAPER, M9	6665-01-049-8982	43,580		54,787	6,877	7,106
DET PAPER, M9	6665-01-226-5589	289,515	261,067	272,813	27,466	8,583
DET UNIT, CHEMICAL AGENT (ALAD SENSR DISK)	6665-01-381-6890	1,181		526	120	85
M18A2 KIT	6665-00-110-9492	41		26	13	0
MAINTENANCE KIT, M293	5180-01-379-6409	41	35,969	30	45	0
NBC MARK SET, M274	9905-12-124-5955	671	16	655	47	24
WATER TEST KIT, M272A1	6665-01-134-0885	60	111	65	5	3

Table 4-3b. Air Force Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
DECONTAMINATION COMMODITY AREA						
CALCIUM HYPOCHLORITE	6810-00-255-0471	41		41	0	0
DECON KIT, M258A1	4230-01-101-3984	698,024	0	390,317	188,379	146,214
DECON KIT, M291	4230-01-276-1905	52,493	58,225	68,023	4,547	6,464
DECON KIT, M295	4230-01-357-8456	27,254	58,245	161	6,701	10,550
DRY SORBENT POWDER	4230-01-262-0484	1,043		43	1,000	0
SODIUM HYPOCHLORITE	6810-00-589-7316	92		92	0	0
STB	6850-00-297-6653	310	79	260	0	0
COLLECTIVE PROTECTION COMMODTY AREA						
FILTER, CP M13 SERIES (M14 GPFU)	4240-00-368-6291	1,672	1,318	1,055	0	0
FILTER, GP M48A1	4240-01-363-1311		132			
FILTER SET, GP, FOR M56	4240-01-067-5605	792		555	300	0
PART FILTER, GP, FOR M56	4240-01-066-3266					
MEDICAL COMMODITY AREA						
2-PAM CHLORIDE AUTOINJ	6505-01-125-3248	800,453	4,481	830,842		
ATROPINE AUTOINJ	6505-00-926-9083	815,197	4,481	824,158		
CANA AUTOINJ	6505-00-274-0951	263,882	940	257,797	153,314	348,536
PYRIDOSTIGIMINE TAB	6505-01-178-7903	27,236	102	30,103	293,243	
TETRACYCLINE	6505-00-655-8356	44,311		40,275	311,525	

Table 4-4a. Navy Logistics Readiness Data - Non-Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS					
					FY98	FY99	FY00	FY01	FY02	FY03
INDIVIDUAL PROTECTION COMMODITY AREA										
CB MASK										
MASK, MCU-2/P	4240-01-173-3443	117,770		131,841	0	0	0	0	0	0
MASK, MCU-2A/P	4240-01-284-3615/17	17,667	7,413	18,453	0	0	0	0	0	0
MASK, MCU-2A/P (WR) USN	4240-00-327-4148-50	71,585		79,320	0	0	0	0	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA										
BIOLOGICAL DETECT EQUIP										
IBAD	NOT ASSIGNED	25	25	0	0	0	0	0	0	0
CHEMICAL DETECT EQUIP										
ACADA, M22	6665-01-348-6963	300	300	0	142	80	78	0	0	0
ALARM, CAA, M8A1	6665-01-105-5623	128	128	154	0	0	0	0	0	0
CAPDS	6665-01-294-2556	304	304	301	0	0	0	0	0	0
CHEM AGENT MONITOR/ICAM	6665-01-199-4153	259	259		0	0	0	0	0	0
CWDD, AN/KAS-1	5855-01-147-4362	401	401	387	0	0	0	0	0	0
ICAD	6665-01-340-1693	384	384		0	0	0	0	0	0
IPDS	NOT ASSIGNED	234	234	32	28	28	45	43	40	38
M21 RSCAAL	6665-01-334-6637	98	98		0	0	0	0	0	0
DECONTAMINATION COMMODITY AREA										
DECON APPAR, M11	4230-00-720-1618	1,250	1,250	820	0	0	0	0	0	0
L/WT DEC SYS M17A3 DIESEL	4230-01-346-3122	96	96		0	0	0	0	0	0
COLLECTIVE PROTECTION COMMODITY AREA										
SHELTER, CP, M20/M20A1	4240-01-166-2254	40	40	0	40	0	0	0	0	0
SHELTER, CP, PORTABLE	4240-01-105-5521	58	58		0	0	0	0	0	0

Table 4-4b. Navy Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE-INS	
					FY98	FY99
INDIVIDUAL PROTECTION COMMODITY AREA						
OVERGARMENTS						
IMPREG UNDERGARMENT	8415-00-782-3243	240		214	0	0
JSLIST (ABDO) 45 DAYS	8415-01-444-1163 8415-01-444-5902		67,601	63,136	33,968	39,100
SUIT, CP CAMO (BDO)	8415-01-137-1700-07	939	0	612	0	0
SUIT, CP, OG MK3	8415-00-214-8289-92	280,225	0	363,795	0	0
OVERBOOTS/GLOVES						
BLK/GRN VINYL O/BOOTS	8430-01-317-3374-85	109,519		120,770	0	0
CP FOOTWEAR COVERS	8430-01-021-5978	153,681		212,950	0	0
CP GLOVES 7 MIL	8415-01-138-2501-04		38,777		0	0
CP GLOVES 25 MIL	8415-01-033-3517-20	287,988	38,630	338,063	0	0
CP SOCKS	8415-01-040-3169		111,315		0	0
CPO FOOT COVERS	8430-01-118-8172	617		160	0	0
DISP FOOTWEAR COVER	8430-00-580-1205		111,315		0	0
GLOVE INSERTS	8415-00-782-2809	330,098		254,739	0	0
MISC PROTECTION						
CP HELMET COVER	8415-01-111-9028		20,243		0	0
FILTER CAN, C2/C2A1	4240-01-119-2315	428,010	15,272	440,067	0	0
HOOD, MCU-2/P	4240-01-189-9423	261	25,258	462	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA						
CHEMICAL DETECT EQUIP						
DET KIT, M256A1	6665-01-133-4964	10,968	0	8,934	0	0
DET PAPER, M8	6665-00-050-8529	13,368	36,220	12,195	0	0
DET PAPER, M9	6665-01-226-5589	30,802	54,188	25,241	0	0
NBC MARK SET, M274	9905-12-124-5955	5	66	5	0	0
TUBE PHOSGENE	6665-01-010-7965	1,596		2,031	0	0
WATER TEST KIT, M272A1	6665-01-134-0885	220	0	141	0	0
DECONTAMINATION COMMODITY AREA						
CALCIUM HYPOCHLORITE	6810-00-255-0471	9,001		6,512	0	0
DECON KIT, M258A1	4230-01-101-3984	45,685	0	58,057	0	0
DECON KIT, M291 (20 PER)	4230-01-276-1905	129,711	9,684	147,227	0	0
DECON KIT, M295 (20 PER)	4230-01-357-8456		9,684		0	0
DS2, 5 GAL	6850-00-753-4870		36		0	0
SODIUM HYPOCHLORITE	6810-00-598-7316	613		583	0	0
STB	6850-00-297-6653		1,239			
COLLECTIVE PROTECTION COMMODITY AREA						
FILTER, GP M48A1	4240-01-363-1311		64		0	0
FILTER SET, GP, FOR M56	4240-01-067-5605				0	0
PART FILTER FOR M56	4240-01-066-3266				0	0

Table 4-4b. Navy Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE-INS	
					FY98	FY99
FILTER SET FOR (M59, M56, SHIPBOARD)	4240-01-369-6533				0	0
MEDICAL COMMODITY AREA						
2-PAM CHLORIDE AUTOINJ	6505-01-125-3248	421,461	1,212	419,052	0	0
ATROPINE AUTOINJ	6505-00-926-9083	571,150	1,212	546,854	0	0
CANA AUTOINJ	6505-00-274-0951	2,635	243	2,318	0	0
PYRIDOSTIGIMINE TAB	6505-01-178-7903	93,662		93,775	0	0
TETRACYCLINE	6505-00-655-8356	4,041	3,271		0	0

4.5a. Marine Corps Logistics Readiness Data - Non-Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS					
					FY98	FY99	FY00	FY01	FY02	FY03
INDIVIDUAL PROTECTION COMMODITY AREA										
CB MASK										
MASK, CB, M40/M40A1	4240-01-258-0061-63		50,116	199,137	0	0	0	0	0	0
MASK, CB, M17A2	4240-01-143-2017-20		0	19,737	0	0	0	0	0	0
MASK, M24, AVIATOR	4240-00-776-4384		0	4,307	0	0	0	0	0	0
MASK, M25A1, TANK	4240-00-994-8750-52	227,069	0	612	0	0	0	0	0	0
MASK, M42, TANK	4240-01-258-0064-66	(total roll-up of	2,706	5,214	0	0	0	0	0	0
MASK, MCU-2/P	4240-01-415-4239-41	mask rqmts)	0	98	0	0	0	0	0	0
MISC PROTECTION										
MASK COMM ADAPTOR	5996-01-377-9695	50,000		21,393	0	0	0	0	0	0
PATS, M41	4240-01-365-8241	258	258	258	0	0	0	0	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA										
CHEMICAL DETECT EQUIP										
ACADA, M22	6665-01-348-6963	689	689	0	12	245	120	312	0	0
ALARM, CAA, M8A1	6665-01-105-5623	28	28	20	0	0	0	0	0	0
CAM/ICAM 1.5	6665-01-359-9006	1,854	1,854	1,854	0	0	0	0	0	0
CAM/ICAM 2.0	6665-99-725-9996	875	875	875	0	0	0	0	0	0
ICAD	6665-01-340-1693	12,399	324,389	9,462	0	0	0	0	0	0
M21 RSCAAL	6665-01-334-6637	197	534	125	0	0	0	0	0	0
NBC RECON SYS, M93	6665-01-323-3582	10	10	10	0	0	0	0	0	0
DECONTAMINATION COMMODITY AREA										
DECON APPAR, M11	4230-00-720-1618	21,050	21,050	43,271	0	0	0	0	0	0
DECON APPAR, M13	4230-01-133-4124	1,600	1,600	17,555	0	0	0	0	0	0
DECON APPAR, PDDA, M12A1	4230-00-926-9488	0	0	70	0	0	0	0	0	0
L/WT DEC SYS, M17A1	4230-01-303-5225	344	344	344	0	0	0	0	0	0
L/WT DEC SYS, M17A3	4230-01-346-3122	884	884	884	0	0	0	0	0	0
COLLECTIVE PROTECTION COMMODITY AREA										
SHELTER, CP, PORTABLE	4240-01-346-2564	230	230	217	0	0	0	0	0	0

Table 4-5b. Marine Corps Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
INDIVIDUAL PROTECTION COMMODITY AREA						
OVERGARMENTS						
CP, UNDERCOVERALL	8415-01-040-3141			0	0	0
JSLIST (ABDO) 45 DAYS	8415-01-444-1163 8415-01-444-5902		726,513	23,905	13,015	16,680
SUIT, CP CAMO (BDO)	8415-01-137-1700-07		0	174,020	0	0
SUIT, CP CAMO DESERT 6 clr	8415-00-324-3087	1,093,497	0	0	0	0
SUIT, CP CAMO-DESERT 3 clr	8415-00-327-5347-53	(total roll-up of	0	0	0	0
SUIT, CP, SARATOGA	8415-01-333-7573-76	suit rqmts)	0	629,776	0	0
OVERBOOTS/GLOVES						
BLK/GRN VINYL O/BOOTS	8430-01-317-3374-85	654,000	1,037,393	273,846	0	0
CP FOOTWEAR COVERS	8430-01-021-5978			368,825	0	0
CP GLOVES 25 MIL	8415-01-033-3517-20	654,000	1,278,838	715,125	0	0
MISC PROTECTION						
2D SKIN, M40 SERIES	4240-01-413-1540	277,069	52,822	23,696	0	0
CP HELMET COVER	8415-01-111-9028	0	873,633	0	0	0
FILTER CAN, C2/C2A1	4240-01-119-2315 4240-01-361-1319	554,246	73,027	206,845	0	0
FITLER CAN, M10A1	4240-00-127-7186	2,468	0	2,468	0	0
FILTER ELEMENT, M13A2	4240-00-165-5026	27,766	0	27,766	0	0
HOOD, M40	4240-01-376-3152		502,529	199,137	0	0
HOOD, M5 FOR M25A1	4240-00-860-8987	867	0	867	0	0
HOOD, M6A2 FOR M17	4240-00-999-0420	29,753	0	29,753	0	0
HOOD, M7 (FOR M24)	4240-01-021-8699	323	0	323	0	0
HOOD, MCU-2/P	4240-01-189-9423	0	288,871	0	0	0
CONTAMINATION AVOIDANCE COMMODITY AREA						
CHEMICAL DETECT EQUIP						
DET KIT, M256A1	6665-01-133-4964	6,324	23,859	4,841	0	0
DET PAPER, M8	6665-00-050-8529	12,654	341,956	12,654	0	0
DET PAPER, M9	6665-01-049-8982 6665-01-226-5589	189,747	389,802	10,565	0	0
MAINTENANCE KIT, M293	5180-01-379-6409	0	220,920	0	0	0
NBC MARK SET, M274	9905-12-124-5955	2,286	2,236	209	0	0
WATER TEST KIT, M272A1	6665-01-134-0885	3,159	1,328	776	0	0
DECONTAMINATION COMMODITY AREA						
DECON KIT , M258A1	4230-01-101-3984	201,568	0	88,627	0	0
DECON KIT, M291	4230-01-276-1905	408,220	37,696	340,876	0	0
DECON KIT, M295	4230-01-357-8456	0	37,696	0	0	0
DS2, 1 1/3 QT	6850-00-753-4827	4,453	2,223	13,648	0	0
DS2, 5 GAL	6850-00-753-4870	7,252	16,207	5359	0	0
DS2, M13 CAN	4230-01-136-8888		2,299		0	0

Table 4-5b. Marine Corps Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMT	NUMBER REQUIRED FOR 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
NITROGEN CYLINDERS	4230-00-775-7541	2,316	4,026	13,081	0	0
STB	6850-00-297-6653	7,410	6,368	401	0	0
COLLECTIVE PROTECTION COMMODITY AREA						
FILTER, CP M12A2 (M14 GPFU)	4240-01-365-0981		216		0	0
FILTER, CP M13 SERIES (M14 GPFU)	4240-00-368-6291		222		0	0
FILTER, CP M18A1	4240-00-365-0982		832		0	0
FILTER, GP M48A1	4240-01-363-1311		454		0	0
MEDICAL COMMODITY AREA						
2-PAM CHLORIDE AUTOINJ	6505-01-125-3248	291,216	98,494	291,216	0	0
ATROPINE AUTOINJ	6505-00-926-9083	205,344	98,494	205,344	0	0
CANA AUTOINJ	6505-00-274-0951	93,336	28,663	93,336	0	0
NAAK, MKI	6705-01-174-9919		93,193		0	0
PYRIDOSTIGIMINE TAB	6505-01-178-7903	93,336	145	93,336	0	0

Table 4-6. Defense Logistics Agency Logistics Readiness Data - Consumables

NOMENCLATURE	NSN	TOTAL SERVICE RQMTS	REQUIRED TO SUSTAIN TO 120 DAYS - 2MTW	STOCKS ON HAND TO INCLUDE FY97 DUE INS	PROJECTED DUE INS	
					FY98	FY99
INDIVIDUAL PROTECTION COMMODITY AREA						
OVERGARMENTS						
AIRCREWMAN CAPE	8415-01-040-9018	N/A	N/A	10,074	14,300	0
CP UNDERCOVERALL	8415-01-040-3141	N/A	N/A	0	0	0
SCALP (TAN AND GREEN)	8415-01-364-3320-22 8415-01-364-3458-60	N/A	N/A	2,086	0	0
SUIT, AIRCREW, CWU-66/77P	8475-01-328-3454(S)	N/A	N/A	0	0	0
SUIT, CP CAMO (BDO)	8415-01-137-1700-07	N/A	N/A	228,758	0	0
SUIT, CP CAMO-DESERT - 3 color	8415-00-327-5347-53	N/A	N/A	45,538	0	0
SUIT, CP CAMO-DESERT - 6 color	8415-01-324-3084-91	N/A	N/A	2	0	0
SUIT, CP, OG MK3	8415-00-214-8289-92	N/A	N/A	0	0	0
SUIT, CP, SARATOGA	8415-01-333-7573-76	N/A	N/A	0	0	0
OVERBOOTS/GLOVES						
BLK/GRN VINYL O/BOOTS	8430-01-317-3374-85	N/A	N/A	0	61,920	102,441
CP FOOTWEAR COVERS	8430-01-021-5978	N/A	N/A	171,087	0	0
CP GLOVES 7 MIL	8415-01-138-2501-04	N/A	N/A	162,000	0	0
CP GLOVES 14 MIL	8415-01-138-2497-00	N/A	N/A	670,146	0	0
CP GLOVES 25 MIL	8415-01-033-3517-20	N/A	N/A	1,326,291	0	0
CP HELMET COVER	8415-01-111-9028	N/A	N/A	347,750	0	0
MEDICAL COMMODITY AREA						
2-PAM CHLORIDE, AUT	6505-01-125-3248	N/A	N/A	208,384	900,000	900,000
ATROPINE AUTOINJ	6505-00-926-9083	N/A	N/A	310,860	850,000	850,000
CANA	6505-00-274-0951	N/A	N/A	173,290	174,000	174,000
DIAZEPAM	6505-00-137-5891	N/A	N/A	5,580	0	0
NAAK, MKI	6705-01-174-9919	N/A	N/A	5,000	470,000	470,000
PYRIDOSTIGIMINE TABLETS	6505-01-178-7903	N/A	N/A	257,000	0	0

APPENDIX 2
FIELDED NBC DEFENSE ITEMS - ISSUES AND CONCERNS

NBC defense items are generally used in combination to form a system or subsystem for a particular function. Therefore, this report will address items used as a system. These systems are categorized into five functional areas:

- Contamination Avoidance
- Individual Protection
- Collective Protection
- Decontamination
- Medical

1. CONTAMINATION AVOIDANCE

Contamination avoidance programs generally include equipment that is used to conduct NBC agent reconnaissance, detection, and identification. This area represents approximately half of the annual DoD NBC defense RDT&E budget. Due to recent type-classification of several programs that are intended to modernize contamination avoidance programs, this area has an unusually high number of developmental programs. Many programs will complete their fielding beyond FY03.

The combined total of chemical agent detection systems remains at high risk with only a 63.7 percent total fill, even with the M22 Automatic Chemical Agent Detector (ACADA) supplementing the M8A1 Automatic Chemical Agent Alarm. The M21 Remote Sensing Chemical Agent Alarm (RSCAAL) is at moderate risk with 82 percent two MTW fill projected by FY03. Technology from this system is expected to be rolled into the JSLSCAD, now under development.

The M93A1 NBCRS is only 41 percent of its projected requirements. This system adds improved mass spectrometer sampling system along with stand-off chemical vapor detection. Several units continue to use trained reconnaissance personnel in HMMWVs and APCs, thus moderating this risk as continued fielding and developmental systems enter the inventory.

Traditional consumables in this commodity area (M8 and M9 detection paper, M256A1 kits and M272A1 water test kits) are available in sufficient quantities to meet wartime requirements. Some shortages exist in individual Services, but overall there is little risk. Shelf life concerns may change this projection; this area remains under review.

2. INDIVIDUAL PROTECTION

Currently fielded NBC defense equipment items were primarily designed for use in the European environment against a Soviet threat. Equipment in this area provides protection against all known CB threat agents. Past Service-unique requirements led to Service-specific procurements and some duplication in capability resulting in the procurement of six different

chemical protective suits and six different masks. This has caused difficulties in meeting current needs and exacerbated logistics planning. The introduction of the JSLIST protective suits should begin to resolve many of these past difficulties.

2.1 Protective Ensembles

The Services have initiated buys for the Joint Services Lightweight Integrated Suit Technology (JSLIST) suits as a replacement for the BDO and other chemical protective suits. As such, the protective suits should be viewed as a system with the older suits providing readiness stocks until the end of their service life. Contracts placed for the JSLIST program will begin delivery in early FY98, equating to about 260,000 suits. These contracts did not include surge option clauses. When Defense Personnel Support Center (DPSC) takes management of JSLIST in FY98, new solicitations will include this requirement. By examining the year-by-year status of protective suits, we added the number of older suits still within service life to the number of JSLIST suits purchased by that year and matched the total against the requirements. In FY03, the services have sufficient protective suits to meet requirements as projected for the average two MTW requirements. However, beginning in FY04, the number of suits on hand will be below Service requirements, as the service life of older protective suits expires in large quantities. These calculations include the approximately $58 million plus-up per year allocated to purchasing protective suits beginning in FY98 (average plus-up between FY98-03).

The Battle Dress Overgarment (BDO) is reaching its maximum extended shelf life limit (fourteen years), and the Services plan no new production. There are no companies currently manufacturing the BDO. The Defense Logistics Agency's largest customer, the Army, has 2.9 million suits on hand in war reserves to sustain its requirements until 1999. Duro, Inc. is the sole source for the inner layer of the BDO's charcoal slurry impregnated fabric (a key capability) used within the BDO suit. Chemical Protective Overgarments (CPOGs), the older generation of BDOs, have not been in production for several years. The Saratoga suit, purchased by DPSC for the Marine Corps, is also out of production.

Armor crews and aircrews require special protective ensembles to integrate with their weapon systems. Services have sufficient numbers of aircrew suits to meet requirements, given the small number of suits required for aircrews. The only exception is the Chemical Protective Undercoverall, which supplements the CWU-66/77. The services have only 64 percent of requirements on hand, resulting in a high risk rating. To protect armor crewmen when they exit their vehicles, the Services have developed the Suit Contamination Avoidance Liquid Protection (SCALP). This suit is rated as high risk because the Services will have only 25 percent of FY03 requirements on hand by that date.

The Services have adequate stocks of 7, 14, and 25-mil chemical protective gloves on-hand for contingency use. Recent DoD surveillance tests have validated the protective qualities of the existing butyl rubber glove stocks. The results from calculating the number projected to be on hand for FY03 exceeds the projected average MTW requirement. The status of the Services on-hand inventories has allowed DLA to pursue an Industrial Base Maintenance

Contract (IBMC) with both current manufacturers (Siebe North, Inc., Charleston, SC, and Guardian Corp., Willard, Ohio) to sustain the industrial base with "War Stopper" funding.

Chemical Protective Footwear Covers, also known as the "fishtail" boot, have been out of production for several years. The Green Vinyl Overboot (GVO) is the interim chemical protective footwear until the JSLIST MULO boots have been fielded (FUE expected in FY99). Because the GVO's primary purpose is not chemical protection, current contracts do not include surge option clauses. Again one should view protective footwear as a system with older GVOs providing readiness stocks until the MULO is fielded in sufficient quantities. Currently the Services have 87 percent of required protective footwear, resulting in low risk assessment. The USMC is the only service reporting a shortage of footwear.

2.2 Eye/Respiratory Protection

The Services continue modernizing their chemical protective mask inventories. Different versions of the protective mask were developed to meet the requirements of different military occupational specialties (*e.g.*, air crew, tank crew, *etc.*). For the Army and Marine Corps, the M40 (for generic use) and M42 (for armor crew members) series masks are replacing the M17 and M25-series masks, respectively. Some Army aviation units are still equipped with the old M24 mask, which will be replaced by the M45 mask. The M43-series mask, designed to be used by Apache equipped units, was in fact issued to all types of aviation units. It is being replaced by the M48 (Apache) and M49 (general aviation) series mask. The M45 will replace the M49 as the general aviation mask. All of these masks are at no risk, as the number on hand exceeds the requirement. These newer masks provide increased protection, improved fit and comfort, and compatibility with most Services' weapons systems' optics and sights.

The MCU-2A/P is designed to meet the needs of the Air Force ground crews, Navy shipboard and shore-based support missions, and Marine Corps rotary wing forces. The number of these masks on hand exceeds the requirement. It will continue to be the mainstay of these units until the Joint Service General Purpose Mask is fielded (which will also replace the M40/42 masks). The Aircrew Eye/Respiratory Protection (AERP) Mask is specially designed to enable pilots of high performance aircraft to conduct mission in a contaminated environment. There are sufficient numbers of this mask to meet requirements.

In order to provide complete protection to our warriors on the contaminated battlefield, particularly from liquid chemical agents, protective hoods and helmet covers are required as part of the warrior's ensemble. The protective hood for the M40 is rated as high risk, with only 56 percent of FY03 requirements on hand by FY03. The second skin for the M40 series mask is a high risk area with only 7 percent of requirements on hand by that date. The MCU-2P hood will be at 96 percent of FY03 requirements and is low risk. Protective hoods for the M17-series, M24, and M25A1 masks are not a readiness problem, as these masks are leaving the inventory. The Chemical Protective Helmet Cover is a moderate risk with 77 percent of FY03 requirements expected to be on hand.

Filters and canisters provide the active ingredients that absorb the chemical and biological agents and provide the essential protection required. The C2/C2A1 canister is used with the M40, M42, M43, M45, M48, M49 and MCU-2/P masks. The number on hand exceeds requirements now through FY03. The M13A2 filter element also exceeds requirements. The M10A1 filter canister used on the M24/25 is short of the requirement, but these masks will leave the inventory and will not be a readiness problem.

3. COLLECTIVE PROTECTION

There are two general categories of collective protection: stand-alone shelters and integrated systems. Integrated collective protection equipment is component equipment designed to provide protection against CB agents through the use of filtered air under positive pressure to a variety of facilities, vans, vehicles, aircraft and ships. Filters for these integrated collective protection systems (CPS) are in short supply due to low peacetime demand and low production quantities. The increased emphasis on procuring individual protection and contamination avoidance equipment has resulted in a corresponding decrease in procurements of shelters and large CP filters. The Air Force has expressed interest in a larger collective protective shelter capability; combined with the Navy's increasing shipboard collective protection filter requirements and the Army and Marine Corps traditional integrated vehicular systems and tactical shelter requirements, the near-term MTW requirements for large carbon-based filters have outpaced current inventories even aided by industrial surge capability. As a result, much of this sector is assessed as high risk, though the risk is primarily due to the level of funding rather than technical shortfalls. One notable exception is progress made in providing shipboard collective protection. By the year 2000, most Naval ships that have close-in support roles (including amphibious ships, gunfire support combatants, and new logistics support ships) will contain significant CPS capabilities.

In the near term, the M51 shelter will be replaced by the new Chemical and Biological Protective Shelter (CBPS). Both Army and Air Force field hospitals are being integrated with environmentally controlled collective protection. The Army's Chemically Protected Deployable Medical Systems (CP DEPMEDS) achieves collective protection through the integration of the M28 Simplified CPE, chemically protected air conditioner, heaters, water distribution and latrine and alarm systems. The M28 Simplified CPE is in production and chemically protected heaters and air conditioners will initiate production before FY99. However, M28 components produced will not be enough to field 18 complete hospitals as required immediately and all these components are not funded to meet Force Package I requirements. Funding for the completion of development and production of chemically protected latrine and water distribution systems and alarms remains unfunded.

The M20-series Simplified CPE is to be used to provide a contamination-free, environmentally controlled work space for Echelon I and II forward area medical treatment facilities. Current funding levels, however, only will meet Force Package I requirements and do not support the fielding of Force Package II that can be deployed into high threat regions. This leads to an assessment as high risk. Current policy is that the M20/M20A1 Simplified CPE is a free issue item with no requirement to stock other than spares replenishment; yet this is the only

modern CP shelter in the inventory until the CBPS arrives in sufficient quantities to moderate this risk. The CBPS is presently in production with fielding to initiate in 1QFY99. The Marine Corps Portable Collective Protection System (PCPS) is at moderate risk due to low quantities on hand. Continued difficulties in obtaining a strong industry leader in this field compound these issues.

Collective protection filters for integrated systems (such as armored vehicles, ships and planes) continue to suffer from low stocks. While the Services have been proactive in selecting more capable industrial sources, actual procurement and storage of these filters to MTW requirements has not yet been initiated. As a result, stocks of filters (in particular those associated with the 200 CFM Particulate Filter Set for Shipboard Collective Protection Systems) remain at a critically low level.

4. DECONTAMINATION

Current decontaminants are highly effective against all CB agents, but most present environmental hazards and are manpower intensive. The services are attempting to find environmentally safe decontaminants which are less labor intensive.

Basic soldier skills for decontamination of vehicle and crew-served weapons rely on the M11 Decontamination Apparatus, Portable (DAP) and M13 DAP. The Army is replacing its 1½ quart M11s with the 14-liter M13 DAPs. They are assessed as posing low risk. The M17-series Lightweight Decontamination System (LDS) is used to provide operational equipment decontamination in many battalion-level units and dual-purpose (smoke/decontamination) chemical companies. It is assessed as moderate risk due to a low inventory and high demand. There is still a large mix of different models in the inventory, forcing the Services to retain a large number of differing spare parts to maintain the different models. Based on projected inventory, should spare parts become difficult to obtain for the different models, the risk may become high. Overall, this risk should drop as more systems are produced and the older models are upgraded or replaced. The Marine Corps is upgrading all of their LDS to the diesel engine.

In the Army, the M12A1 Power-Driven Decontamination Apparatus (PDDA) and the M17A3 Light Weight Decontamination System (LDS) are the primary pieces of equipment used to decontaminate vehicles, crew-served equipment and large areas of terrain. The M12A1 is assessed as moderate risk. Although the quantities on-hand of the M12A1 would normally result in a low risk assessment, the maintenance requirements, due to the age of this item, limit its full utilization. The M21/M22 Modular Decontamination System will replace the M12A1 PDDA over the POM period, resulting in a high-low mix of technology until all M12A1s are replaced. By FY02, the on-hand quantities of the M21/M22 MDS alone should satisfy the two MTW requirement. Additionally, the Marine Corps is replacing the M12A1 PDDA with the M17 series Lightweight Decontamination Apparatus.

The M258A1 Skin Decontamination Kit is the primary item used in personnel decontamination. The replacements for the M258A1 are the M291 Skin Decontamination Kit and the M295 Equipment Decontamination Kit. Although the M291 would be assessed as high

risk, the availability of M258A1 decontamination kits still in the inventory helps steady overall readiness stocks. The projected stockage of the M295 Decontamination Kit, however, puts it in a high risk category when compared with 2 MTW requirements.

The M295 Decontamination Kit began delivery in December 1997. Rohm & Haas, Co., the sole supplier of the resin, sold the mixing and packaging equipment they used to manufacture the M291 Decontamination Kit. Pine Bluff Arsenal, Arkansas, set up a production line and began to manufacture the M291 Kit in October 1996. Rohm & Haas continues to provide the XE-555 resin components. True Tech Inc. is blending the components to make the XE-555 resin. Alternatives to producing a kit that does not use the XE-555 resin are being studied. There are a number of options being explored to retain this "at risk" technology.

While less hazardous replacement decontaminants are being developed, the quantities and packaging of current decontaminants present some risk. The projected stockage of STB falls far below the requirements and is therefore considered in the high risk category. Calcium hypochlorite is also high risk. Both these items remain a high risk until alternative decontaminants are developed. Slight shortages in sodium hypochlorite can be made up by the industrial base. Although sufficient quantities of bulk of DS-2 are available, the Marine Corps plans for stocking containers of DS-2 (5-GAL and M13 Can). Other Services will have adequate supplies of those containers and can ameliorate that shortage.

5. MEDICAL

Medical NBC defense items are used to counteract the effects of exposure to chemical or biological agents through pre-treatments, vaccines, or post-treatments. Quantities of Nerve Agent Antidote Kits (NAAK), Convulsant Antidote Nerve Agent (CANA), and Nerve Agent Pyridostigmine Pretreatment (NAPP) tablets now support two MTW requirements. Active duty Army units are assumed to have their Set-Kit-Outfit components on hand, as required by Army regulations. Changes in previous inventory figures and FY96 figures were based on a year-end reconciliation of stocks at depots, the disposal of stocks located at Meridian Medical Technologies (formerly Survival Technology, Incorporated (STI)) that failed extension approval by the Food and Drug Administration (FDA), and increase in stocks due-in to the Army-owned account as a result of year-end buys.

The sole supplier to DoD for nerve agent antidote kits is Meridian Medical Technologies whose manufacturing plant is located in St. Louis, Missouri. Although Meridian is a U.S. company, both the atropine and pralidoxime chloride drugs used to fill autoinjectors are obtained from German suppliers. Currently, there are no domestic sources for these drugs.

The U.S. Army Medical Materiel Development Activity (USAMMDA) added Meridian to their New Drug Application (NDA) for producing the CANA autoinjector. The Army continues to requisition CANA from the Defense Personnel Support Center (DPSC) to replenish and maintain stocks, and to support the industrial base. Meridian's nerve agent antidote production line is being maintained with an IBMC. USAMMDA's centralized management initiative for medical chemical defense materiel should also aid in maintaining the health of

Meridian's line. The shelf-life extension for nerve agent antidote kits is part of this initiative and will help keep Meridian viable. Current projections for the NAAK, CANA, PB Tablets, and autoinjectors (pralidoxime chloride, atropine and multi-chambered) indicate that sufficient quantities should be on hand through the POM years and present low risk as long as the constituent drugs continue to be available from the foreign sources.

Medical research continues to explore medical countermeasures to deter, constrain, and defeat the use of biological warfare agents against U.S. forces. JPO-BD has recently awarded a prime systems integration contract for the development, FDA licensure, and production of vaccines. They are also assisting the sole domestic supplier of anthrax vaccine to maintain FDA licensure and to transition its production facility to a new owner in FY98. The new owner would then continue to fulfill the current contract.